

E-Series RF 1:4 Flux Coupled Step-up Transformer

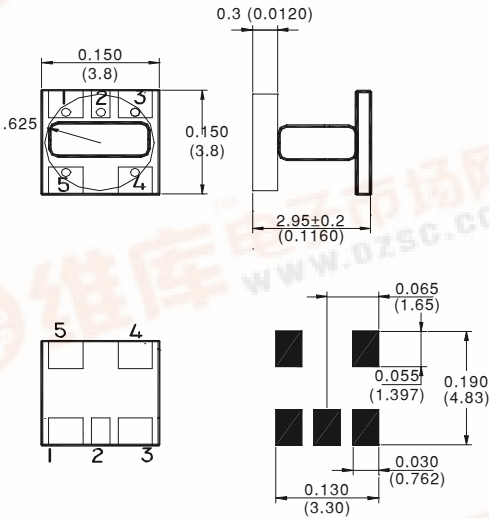


Features

- Surface Mount
- 1:4 Impedance Ratio
- CT on Secondary
- Available on Tape & Reel



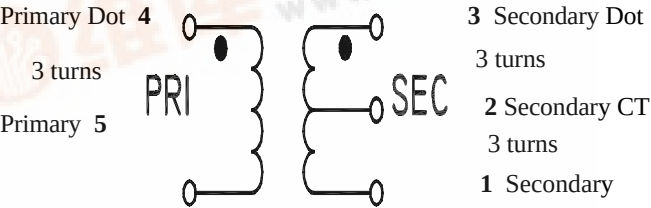
SM-119 Package



Description

M/A-COM’s MABAES0010 is a 1:4 RF flux coupled step-up transformer in a low cost, surface mount package. Ideally suited for high volume cellular and wireless applications. Typical applications include single to balanced mode conversion and impedance matching.

Schematic



Electrical Specifications @25°C

Parameter	Units	Nominal	Maximum	Mean (x)	Sigma (σ)
Frequency Range 2.0 - 800	MHz	—	—	—	—
Insertion Loss (f _L - f _U)					
10 - 100 MHz	dB	—	2.0	—	—
5.0 - 600 MHz	dB	—	2.2	1.21	0.032
2.0 - 800 MHz	dB	—	3.0	—	—
Amplitude Unbalance					
10 - 100 MHz	dB	—	0.25	—	—
2.0 - 800 MHz	dB	—	1.3	—	—
Phase Unbalance					
10 - 500 MHz	Degrees	—	3.0	—	—
2.0 - 800 MHz	Degrees	—	10	—	—

Note: Mean and Sigma calculated from average loss at @ 105 MHz.

Please Note that the photograph above indicates typical package only, not actual unit.

Absolute Maximum Ratings

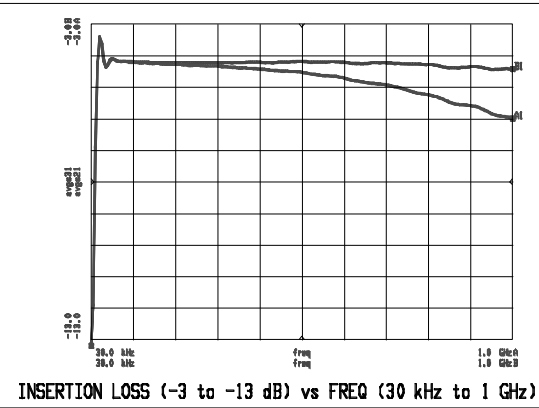
Parameter	Absolute Maximum
RF Power	250 mW
DC Current	30 mA
Operating Temperature	-20°C to +85°C
Storage Temperature	-20°C to +85°C

Functional Configuration

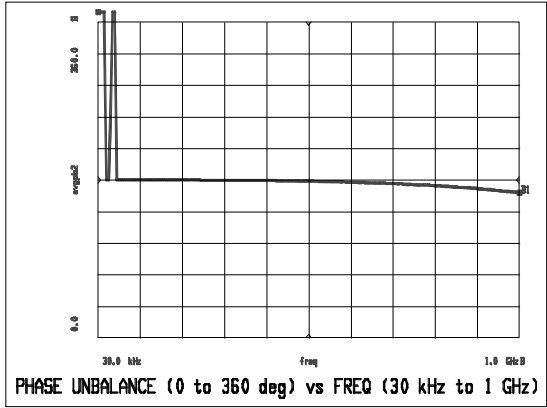
Function	Pin No.
Secondary	1
Secondary CT	2
Secondary Dot	3
Primary Dot	4
Primary	5

Typical Performance Over Extended Bandwidth (30kHz - 1.0GHz)

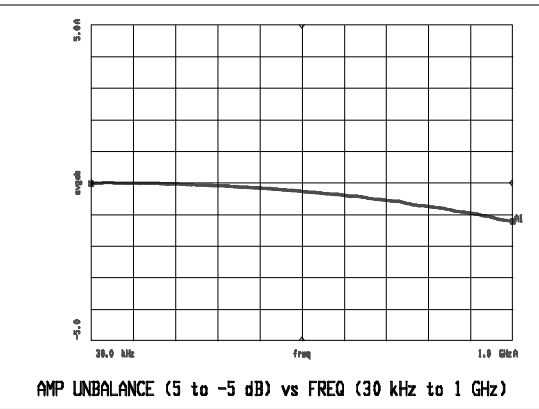
Insertion Loss



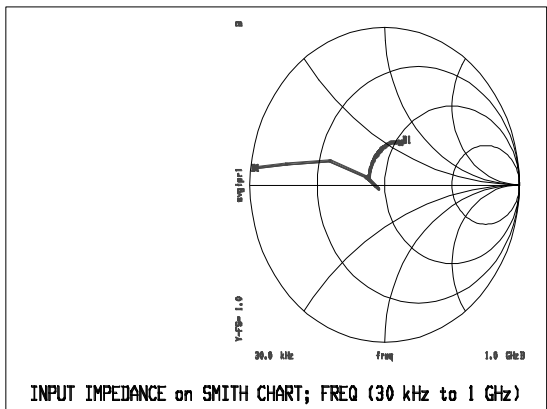
Phase Unbalance



Amplitude Unbalance



Input Impedance



Note: All measurements performed on Hewlett Packard 8753D Network Analyzer (201 sample points, linear scale) in a 50 ohm coplanar waveguide environment. Tables created using MDS software.